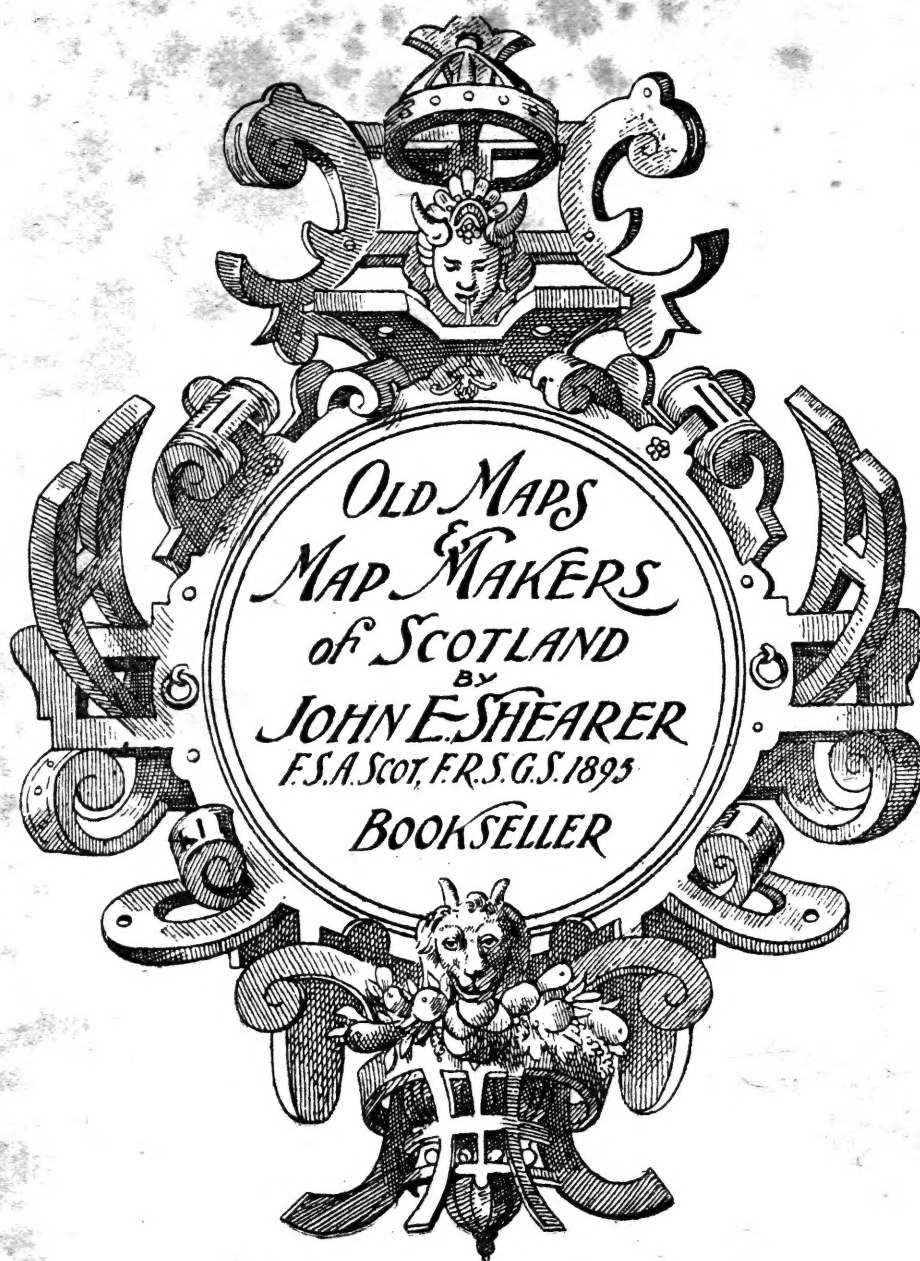


OLD MAPS AND MAP-MAKERS OF SCOTLAND—John E. Shearer

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OF SCOTLAND



John E. Shearer



PREFACE.

FOR a considerable time I have been republishing old maps of Scotland, and endeavouring to make their importance, and what can be learned from them, more widely known.

All along I have felt the want, which, no doubt, has been felt by all interested in books, that there was no work to guide those wishing to study the subject of "The Maps and Map-makers of Scotland."

The information in this volume was gathered together in the first place for my own use, and a little time ago I ventured to give to the Stirling Natural History and Archæological Society a paper on the subject, which was illustrated with 50 lantern slides showing the maps I considered most interesting. At the request of the Royal Scottish Geographical Society, I supplied two papers to their magazine this year, under the title, "The Evolution of the Map of Scotland"—Stages I. and II.

I am glad to see that a growing interest is being taken in old maps, and trust many librarians will follow the excellent example of the Librarian of the Public Library of Aberdeen in forming a collection, and publishing a detailed list of their maps.

On the recommendation of friends, I have been persuaded to publish this book, which, I trust, will be of value and interest to book-lovers, librarians, and booksellers. I feel that I cannot do better than close these remarks by quoting the last two lines of the Preface to that great work, "The Early History of Cartography," in which the author, Baron Nordenskiöld, says that "He will feel himself richly rewarded if it should contribute not only to supply a defect in the geographical literature of the day, but also to promote new discoveries in the recesses of libraries and map collections."

JOHN E. SHEARER.

STIRLING, 1905.

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*The Ornaments in this work are from
16th century maps.*



From Speed's Map of Scotland, 1610. ? 1627



FROM a very early period in the world's history charts and maps have been drawn. The date of the earliest attempt at map-drawing has never been ascertained, but it is known that for hundreds of years before the Christian era maps were made. Many excellent and very learned works have been published on the ancient geography and earliest explorations of the East.

These works tell that nations emerging from primeval conditions considered that the earth was in the shape of a flat, circular disc, surrounded on all sides by water, and covered by the heavens as with a canopy, in the centre of which their own land was situated.

On the Continent this matter of map-making has been considered of great importance, and has attracted considerable attention. The principal work on the subject is Nordenskiöld's Fac-simile Atlas, published Stockholm, 1889. This great book is in two volumes, published at £10 10s. each, the first volume being the "Early History of Cartography," with reproductions of the most important maps printed in the 15th and 16th centuries, and the second volume a "History of Charts and Sailing Directions."

At the British Museum, old maps and atlases have received the care and attention they deserve. The large catalogue in two volumes is sold for £6 6s., but in these volumes the cartography of Scotland requires many additions to be made before it can be considered complete.

It is surprising to find in Scotland how greatly this subject has been neglected, and how little has been done towards the study of cartography. There is no complete catalogue of the maps of Scotland, and no library has a collection of any importance, and even

district or county maps (which abound with matters of local interest) have received little attention from any public body.

The reason why so little has been done, and can be done, in the way of a history or list of the cartography of Scotland, is owing to the want of a collection of old atlases or maps.

What could be a grander sight, or give greater pleasure to an antiquary or a book-lover, than to see a room full of all the marvellous and interesting ancient atlases and maps, in company with editions of Camden and others, *fac-simile* atlases and early books of travel? From these would be seen the developments and improvements in map-making, the advance in printing and engraving, the beautiful bindings and the artistic designs on the maps, which would be both instructive and interesting.

A small sum spent annually would in a few years make a good collection, but the unfortunate thing is that this was not started many years ago, when these works were more plentiful, and when old atlases were being removed from private libraries, and were considered of small value.

The formation of this collection would be a fitting memorial to the memory of the men who laboured so faithfully and devotedly to make the early maps of

our country, and of whose life and work so little now remains but the maps themselves.

Gough's "British Topography" of 1780, of which an earlier and much inferior edition appeared in 1768, is the only great work published in this country on maps. In this work by Richard Gough, of London, the portion relative to Scotland is interesting, but not at all complete. A start was made with a list of the cartography of Scotland a few years ago by J. G. Bartholomew, F.R.G.S., &c., published in the R.S. Geographical Society's Atlas.

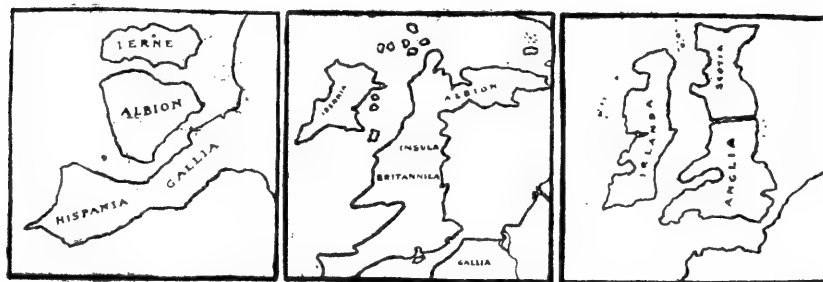
The paper read before the R.S.G.S. by C. G. Cash, F.R.S.G.S., and published in the magazine of August, 1901, on "The First Topographical Survey of Scotland," contains much information about T. Pont and those who worked for the volume containing maps of Scotland in Blaeu's Atlas.

It is to be hoped this is only a forerunner of papers on the maps and map-makers of Scotland, and that they may always be in equally competent hands.

Professor Hume Brown, in his interesting books, "Early Travellers in Scotland" (published 1891), and "Scotland Before 1700" (published 1893), has given reproductions of old maps and written a little about them, without examining the maps carefully.

Mr. James Macdonald, LL.D., F.S.A. (Scot.), in his able paper on "The Roman Roads of Scotland," read to the Society of Antiquaries on May 8th, 1893, gave a history of Ptolemy's map.

From maps I have seen, I can give the following information, some portions of it being corrections of what has been recently printed, and some of it information from recent discoveries.



MAPS OF THE BRITISH ISLES

STRABO ABOUT 20 B.C.

PTOLEMY 150 A.D.

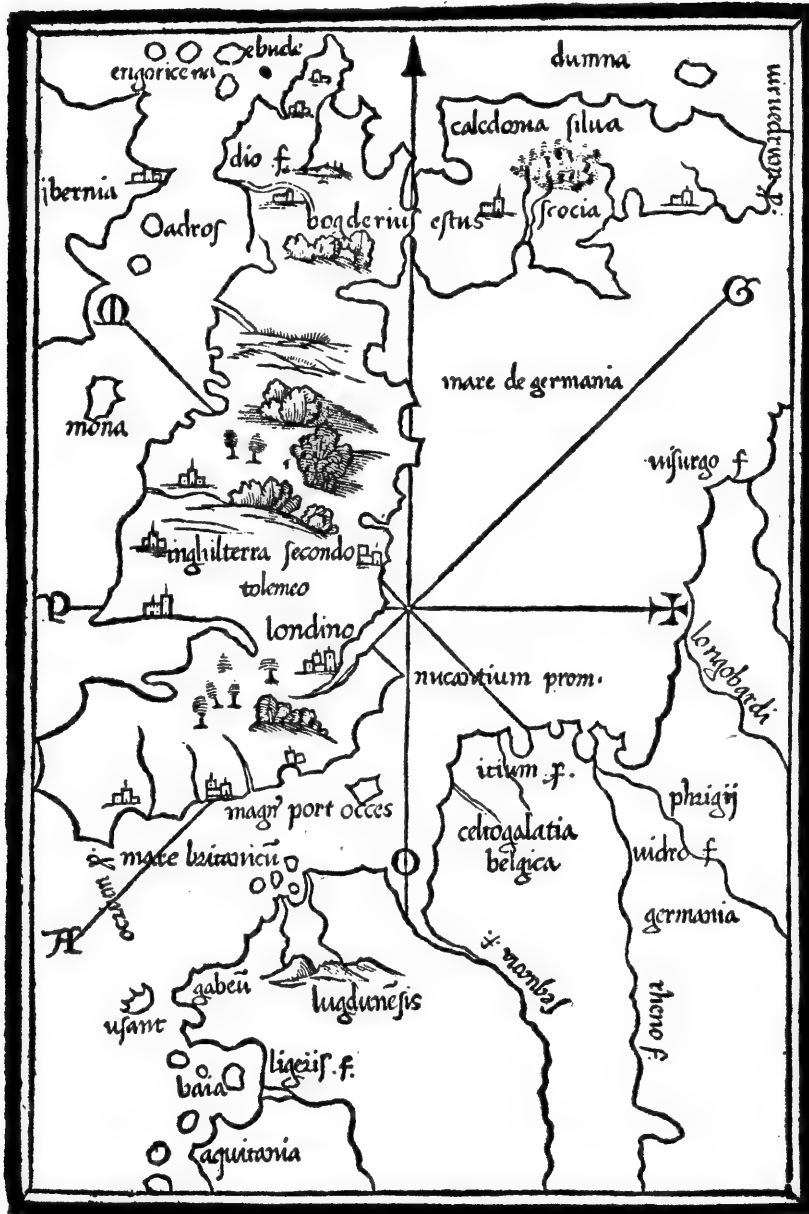
SANTA CRUZ 1542

In the time of Homer, about 850 B.C., our island was not known to the civilised world. It may have been known earlier, but the credit of first visiting our shores is given to the Carthaginian Himilco, who mentioned our island in his writings about 500 years before the Christian era. Passing over 500 years, we find the famous geographer, Strabo, about the beginning of the Christian era, had a map of our islands which bears little resemblance to our maps of to-day.

Ptolemy of Alexandria, about 150 years after the Christian era, had an excellent map of Britain for the period, with one great mistake, representing Scotland as bent round to the east in place of going up northwards.

To start with, it is well to state clearly that Ptolemy's map of 150 A.D., which was known to the civilised world, continued to be an authority till about 1500 A.D., and did not show Scotland as an island.

The honour of first bringing out maps which corrected the mistake of Ptolemy in having Scotland bending eastward, falls to a German named Johannes Ruysch, who had his map of the world printed at Rome in 1508. In this map Scotland is not shown as an island. It is known he was a sailor and sailed to different parts of the world. The following extract from Nordenskiöld's Fac-simile Atlas is very interesting:—"The map of Ruysch is the first map published in print which, following a correction made in the portolanos since the beginning of the 14th century, leaves out that excessive projection towards the east, which characterizes Ptolemy's map of the northern part of Scotland. Ruysch deserves to be placed in the first rank among the reformers of cartography. His map is not a copy of the map of the world by Ptolemy, nor a learned masterpiece composed at the



PTOLEMY'S MAP OF BRITAIN.
From Bordone's Atlas, published Venice, 1528.

writing table, but a revision of the old maps of the world on a scientific basis. Ruysch had great personal experience and geographical learning."



ENGLAND, WITH SCOTLAND AS AN ISLAND.

By Bordone, Venice, 1528.

Scotland Shown as an Island, 1528.

Very soon after the beginning of the 16th century it must have been thought on the Continent that Scotland was surrounded by water, as in the atlas named "Isolario" (mentioned in the British Museum catalogue) by Benedetto Bordone, published Venice, 1528, 1533, and 1534, there are maps—called "The Moderns," by Bordone—which show Scotland as an island.

The edition of 1528 is a beautifully printed 4to volume of 74 pages. Ptolemy's maps of the British Isles, Europe, and the one of the world, are given, showing Scotland in the regular bent round peninsular form. In addition, there are many quaint and bold small wood-cut maps printed along with the letterpress. One of these small maps on page 3 gives the "Scocia" divided from England by water (as shown on opposite page).

The first Harleian MS. 1535 map of the known world, size 8 feet by 4 feet, now in the British Museum, is attributed to Pierre Desceliers of the Dieppe School of French Cartographers, and also shows Scotland as an island.

In the famous map of the world by the renowned Spanish geographer, Santa Cruz, Scotland in 1542 is shown as an island about the size of England.

Sebastian Cabot, one of the greatest navigators and explorers, who lived successively in England and Spain, and who was employed by the Kings of these countries, published his famous map of the world in 1544, in which Scotland is also given as an island.

John Cabot and his son, Sebastian Cabot, came from Venice and settled at Bristol in the reign of Henry VII., and stirred up the English for action as navigators. Edward VI. granted Sebastian a pension in 1548.

Turning now to what was intended for Scotland on English maps of the 13th, 14th, and 15th centuries, we find that in England, Scotland, or a large part of Scotland, is always shown as an island, and this information travelling over to Italy, France, and Spain, led Bordone, Desceliers, and Santa Cruz away from the old work of Ptolemy, and into the mistake of making Scotland an island.



COAST-LINE OF BRITISH ISLES.

By Pierre Desceliers, 1535.

Scotland Shown as Not an Island.**COAST-LINE OF BRITISH ISLES.****By Pierre Desceliers, 1546.**

The second map of the world drawn by Pierre Desceliers of the Dieppe School of Cartographers, dated 1546 (six years after Alexander Lyndsay's voyage round Scotland with James V.), shows Scotland in its true relation to England, and not surrounded by water. Another map from the same hand came four years later, only truer and better than the one last mentioned.

The following very interesting extract from the daily Press tells of these maps:—

EARLY MAPS FOR THE MITCHELL LIBRARY.—The Earl of Crawford and Balcarres has presented to the Mitchell Library of Glasgow a set of valuable and interesting reproductions of early maps of the world in the form of autotype *fac-similes*, as follows:—(1) The Harleian (or anonymous) mappemonde, of date about 1536, in the British Museum: (2) the mappemonde by Desceliers, 1546, of which the original manuscript is in Lord Crawford's library; (3) the mappemonde by Desceliers, 1550, in the British Museum—with introduction by C. H. Coote, acting head of the map-room in the British Museum. This reproduction forms part of a series of bibliographical works issued privately by the Earl of Crawford under the title of "Bibliotheca Lindesiana: Collations and Notes."

Very soon after the middle of the 16th century, it must have been known to the famous geographer and map-publisher, Ortelius, in the Netherlands, that Scotland was not an island, because in 1570 he

brought out his atlas (which would be some time in preparation) containing a map of the British Isles and one of Scotland. These maps do not show Scotland as an island, and they resemble somewhat in form our maps of the present day.

The map of Ortelius proves that shortly after the middle of the 16th century an atlas was published which gave a map of Scotland, and presented a fairly accurate conception of this country. He seems to have obtained assistance from Humphrey Lloyd, a native of Britain. Camden mentions in his famous work that Abraham Ortelius "did very earnestly solicit him" to undertake the task of writing the *Britannia*, and that he assisted Ortelius.

The credit of first publishing a map something like in form to Scotland has been recently given to Mercator, whose atlas came out about 20 years after that of Ortelius. On comparing these two early printed maps, Mercator's is found to resemble in many points that of Ortelius, with improvements.

The Berlin Geographical Society in 1891 published a large folio of "re-found" unpublished maps by Mercator, and among these drawings Great Britain is given on eight sheets, and is dated 1564. The Scotland on these sheets bears a very striking resem-

blance to the smaller map issued by Ortelius in 1570; but, taking all the circumstances into consideration, there are good reasons for supposing that Ortelius collected the information in England which he carried over to the Continent, and these improvements (which are to be seen in his own of 1570, and in the hand-drawn map by Mercator of 1564) were gathered together by Ortelius.

It is a mistake to think that foreigners sketched and made our maps of Scotland. They no doubt printed and published our maps for a long time down to the 17th century; but with the exception of Ptolemy, about 150 A.D., the gathering of the information and compiling of our maps were done by natives of our land, who sometimes gave the information away, but fortunately, sometimes published their own maps.

Alexander Lyndsay, the pilot of James V., Timothy Pont, Robert Gordon of Straloch, his son, Rev. James Gordon of Rothiemay, and others, along with the surveyors of the old large county maps, were the men who did the work of building up and improving the early maps of Scotland.

Had it not been for Sir John Scot of Scotstarvet, T. Pont's maps would not have been taken care of and published.

Alexander Lyndsay, the pilot with James V. on his voyage round Scotland in 1540, did a great service to his country and to map-makers by his survey of the Scottish coast-line and islands. Leaving out Ortelius, who published Scotland in his atlas in 1570, many maps from 1540 down to Gordon in 1653, and afterwards Jansen, 1659, have several portions of their coast-lines resembling the Lyndsay-D'Arfeville map of 1540-83.

The small island, Rona, 45 miles N.N.E. of the Butt of Lewis, has been placed by Ortelius, 1570, almost in line with the top of Lewis. (This may have been done by the engraver to give space for his finely-designed title of this map.) The map of the voyage of James V., which came out, and was printed in 1583, has the island nearly in its correct place, about 40 miles to the north, and it is curious that three map-makers who came after (Mercator, 1595; Speed, 1610; and Jansen, 1659), all copied the 1540-83 map for their coast-line; and that of Ortelius, 1570, for the position of the Rona island and the internal arrangement of the country.

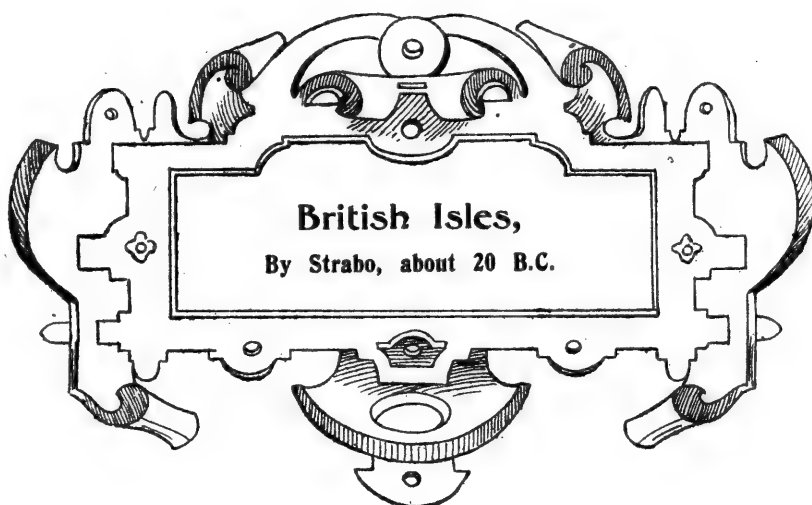
On the Ortelius map the northern coast-line from Cape Wrath to John o' Groats rises gradually from west to east (this is seen as well on Mercator's 1564 hand-drawn map). The Lyndsay-D'Arfeville 1540-83

map and the printed Mercator of 1595 have it almost level, and there is also added on this 1595 map a long promontory like a crow's beak on the north-east of Lewis, and this was all repeated down to the time of Jansen, 1659.

The hand-drawn Mercator of 1564, and the printed Ortelius of 1570, read and have to be looked at from the right side, but the Mercator from the atlas of 1595 has the printing from left to right in the usual way. The printed Mercator map is a great advance on the hand-drawn map, and has improvements taken from the Lyndsay-D'Arfeville map of 1540-83.

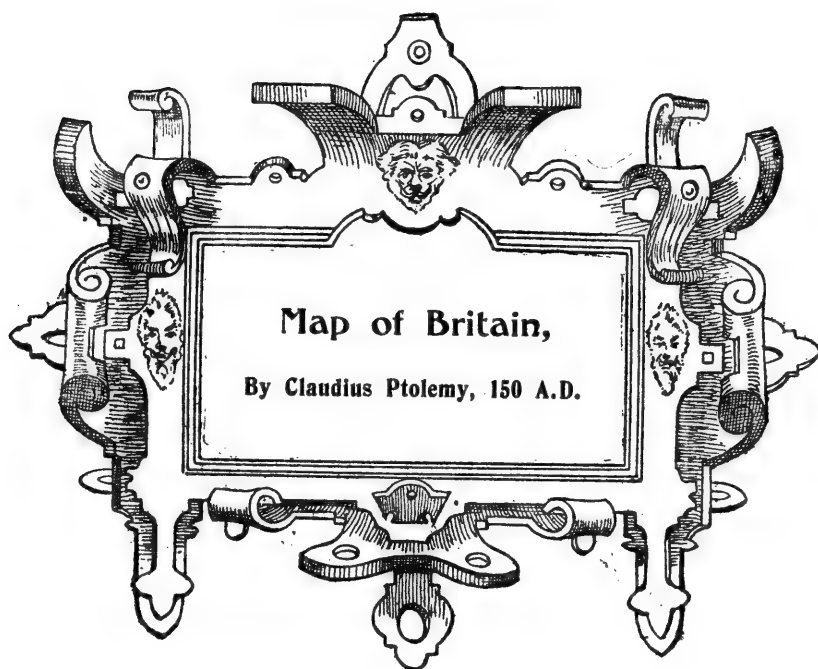
As we have now reached a period when Scotland is fairly well shown on maps, we will turn back to the beginning of map-making, and see how maps grew in size, and improved in appearance, and how the art of map-making started in the East and travelled from one country to another by the Mediterranean, took a strong hold on Italy, Germany, France, Holland, and then on our own country.

The maps to be mentioned are only a selection of those I consider most interesting. The dates to be given are in almost every case taken from the maps or atlases.



Strabo was born about 64 B.C. in Asia, near the Black Sea. He was a student, writer, and traveller, and was living at Corinth in 29 B.C., ascended the Nile 24 B.C., settled in Rome 14 A.D., and is believed to have died after 21 A.D.

Strabo wrote a great historical work, very little of which now remains, but his "Geographia," from which this sketch was taken, was a work in 17 books. Editions of this work have been published on the Continent from 1472 onwards, and in 1854-57 an edition was printed in English in Bohn's Library, in 3 vols.



The compiler of this map was born in Egypt, and lived in Alexandria from 139 to 161 A.D. He did much to correct the work of former geographers, and was famous for his knowledge of astronomy.

He constructed a series of 26 maps, with a general map of the world—a work he could never have carried out if it had not been for the earlier labours of Marinus of Tyre. Scotland is represented as bent fully round to the east in Ptolemy's map.

In this map Scotland is not shown as an island, as was done in maps printed hundreds of years after in France and Spain.

"The maps connected with the oldest editions of the geography or cosmography of Claudius Ptolemæus constitute the prototype of almost all geographical atlases published since the discovery of the art of printing. This is due not only to the circumstance that the rules and directions given by Ptolemy, for drawing geographical maps, are still practised in mapping continents and oceans to which the surveyor's triangulation has not yet been extended; but also because the method of denoting boundaries between lands and seas, mountains, rivers, and towns, used in old manuscripts of Ptolemy's work, and especially in its oldest printed editions, have up to this very day, with but slight variations, been followed by cartographers. They, also, almost always use the Ptolemaic orientation (north above, east to the right), the graduation of Ptolemy, and also very often some of his projections. The principles of geography may be said still to be published with Ptolemy's alphabet."—*Nordenskiöld's Fac-simile Atlas.*

It is very probable that the information and details for Ptolemy's map were obtained from the Romans, and that this knowledge was collected by Agricola's

officers when in this country after 80 A.D. The names and stations would seem to establish this. Ptolemy, however, informs us that his work was based on the earlier labours of Marinus of Tyre, who, again, may have derived his information from Roman sources.

The date of the first-printed map of the British Isles by Ptolemy is generally given as 1478 at Rome, but in Nordenskiöld's Fac-simile Atlas a plate is given of the one printed about 1472 by Dominicus de Lapis, of Bologna, Italy, original size 505 by 405 mm., of which a large and clearly-printed edition is dated Rome, 1490. These words in large letters are printed over England:—
"Britannia insula, Albionis, Albion, nunc vero Anglia."
There is no large lettering on Scotland, but "Caledonia Silva" is given in small type. The map has lines for latitudes and longitudes drawn across it, and has misprints.

This map had a very long life, and was not superseded by an improved map for more than a thousand years.

Even after that date publishers of atlases in the 16th, 17th, and 18th centuries had so much reverence for Ptolemy's map that it was printed and bound up in their atlases alongside of newer and more correct maps of Scotland.

It is the first map in the volume of Blaeu's Atlas for Scotland, and an edition of the atlas was published at Amsterdam as late as 1730.

It was only after the time of James V.'s voyage round Scotland, in 1540, that more correct ideas about the coast-line of Scotland were entertained.

An interesting matter connected with Ptolemy's map of Britain was an edition of a work brought out in 1757-8 by C. J. Bertram, teacher of English at Copenhagen.

This teacher asserted that this work had been found in the Royal Library at Copenhagen, that its author was Richard of Cirencester, a Benedictine monk of Westminster, and that the date when it was written was 1338. The book was named "*De Situ Britanniae*," and the map was given as Roman Britain. Gibbon says of Richard that he shows a genuine knowledge of antiquity very extraordinary for a monk of the 14th century.

The map would have been more correctly named Bertram's 18th Century Map of Roman Britain, compiled from Ptolemy's map, the author's imagination, and other sources. Bertram's publication was considered a great find, was accepted as genuine, let loose a lot of false information which misled many

authors, and was treated with respect down to 1866-7, when Mr. B. B. Woodward, librarian at Windsor Castle, finally exposed the fraud in an article in the *Gentleman's Magazine*.

With letterpress, this map, along with one by Ptolemy, was given in Roy's "Roman Antiquities" in 1793, and the two maps again appeared in Lothian's Atlas of Scotland, published Edinburgh, 1826. The maps in Chalmers' "Caledonia" of 1807 and 1887 show much from Bertram's map.

Sir Robert Sibbald, who wrote of Roman Britain, lived 1641 to 1722, and his work is therefore unaffected by Bertram's production; but there is a probability that Sibbald would have detected the fraud if the work had come out in his lifetime.

Dr. John Hill Burton, in the first volume of his History of Scotland, tells of the map, and in the contents to the same volume terms it:—"The accepted Roman geography of Britain, founded on a forgery."

The next three maps show what was done in the way of map-making in England in the 13th, 14th, and 15th centuries, when English people believed Scotland, or a large portion of Scotland from the River Forth northward, to be an island, an idea that could never have been held by native Scots.



The original of this map is believed to be by his own hand, and was made about 1235. Matthew Paris, the best Latin chronicler of the 13th century, was born in England about 1200, and died 1259.

In the neighbourhood of Stirling the following matters are of interest. The Friths of Forth and Clyde are shown to be joined, and from Stirling northward Scotland is represented as an island, Stirling, spelled Est'velin, being marked on the island on the north side of the Forth, and on the opposite or south side, where the town should stand, the word "Pons" is printed. This is the first map showing Stirling Bridge.

The country north of the Forth is named "Albania," or "Scocia ultramarina," *i.e.*, "beyond the friths." The names Fife, Dunfermline, Lothian, Glasgow, and Edinburgh are given. The most northerly Roman wall (Graham's Dike) is named "Wall deviding the Scots and Picts of old," and the wall further south is named "Wall separating the Angles and Picts of old."



The author or date of this map has never been ascertained. Ancient and modern writers agree that it was drawn about 1314, or probably earlier.

The original drawing of this map was before the Society of Antiquaries of London in 1769, and it was preserved, very carefully engraved, and published by Gough in his book, "British Topography," in 1780, and a little later it passed into the Bodleian Library.

This map has been reproduced by the Ordnance Survey, in the National Manuscripts of Scotland, and, with a description, will be found in Hume Brown's "Early Travellers in Scotland."

This map shows finer drawing and more detail than on the one last mentioned by Matthew Paris, of 1235. North of Stirling is still represented as an island, but Stirling is now shown on the proper side of the Forth. Stirling and Dumbarton are shown with castles; Edinburgh has a castle and church with spire; Cambuskenneth (left out of a modern edition), Dunblane, Glasgow, and St. Andrews have all churches with spires.

Near Stirling no bridge is given over the Forth, but this very interesting wording is printed, "Hic passagium de drippes," and further up the river, very boldly printed, are the words, "Pons Aghmore" (or Achmore), but it is difficult to say from the map where it was situated. This is shown by a broad line crossing the water coloured red, the same colour that is on large houses.

The Chronicle of Harding (b. 1378—d. 1465), about one hundred years after, has the following lines, which tell of ways of crossing the Forth near Stirling:—

"From Sterlyng, then over the river Foorthe,
Passe alongest the bridge to Camskenelle,
And if it be broken toward the north
Unto the Foorde of Tirps under the fell,
Then spede you westward three miles, as men tell,
Where ye maie pass to the doune of Menteith."

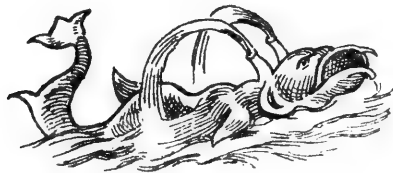
This mentions Stirling Bridge, and there is little doubt "the Foorde of Tirps under the fell" is a ford near the Drip, under the shadow of Craigforth, and that three miles further west you could pass to Doune.

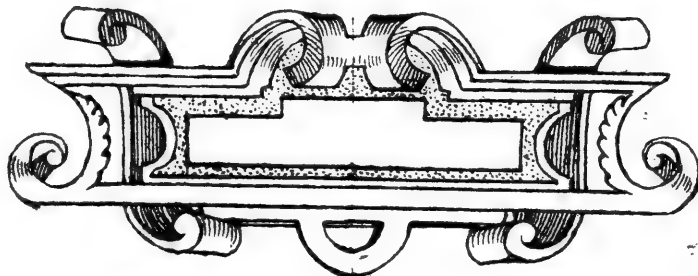
The raised natural rocks in the bed of the river above the Drip, at the side of Craigforth, form the safest and best ford on the Forth in our district.

Not far above this, Nature has supplied a centre pier for a bridge. This great rock stands well out of the water, and there would be little difficulty in throwing a temporary bridge across here with a few trees, as the river is very slow running, shallow, narrow, and not affected by the tide.

This is the first map I have seen recording wonders in our large lochs, but the example has been followed in later maps.

Here we learn about Loch Tay:—"In isto lacu tria mirabilia, insula natans, pisces sine intestinis, fretum sine vento."



**Carlisle to Lindores, 1461****(Reign of Edward IV.).**

This is a portion of a most interesting and curious map, containing notes which are not complimentary to Scotland, and the words, "Wilde Scottz," are placed at Mar, Athole, and many other districts. "The original MS. is in Harding's Chronicle in the Bodleian Library. It is written in large letters on parchment, bound in silken or velvet cover, adorned with brass bosses, titled *Chronicles of Inglande*, in Inglyshe, written ballet-wise on parchment." Gough, who describes and gives illustrations of these maps in his "*British Topography*," says this seems to have been the author's presentation copy to Edward IV.

Harding was born 1378, and died 1465.

The principal points of interest are the sketches of Stirling Castle, above it Doune Castle and Perth Castle. A large building is given at Dunblane.

Dumbarton and Edinburgh sketches show the large buildings for castles, Glasgow has a cathedral, and Lindores an abbey.

The Firth of Forth is called "Mare Scoticum," and we are told between the "Scottes See" and water of Tay there are many towns. The following places are only mentioned by name, without sketches:—Cambuskenneth, Alloa, Dunfermline, Inverkeithing, and Leith.

Scotia Tabula, by Abraham Ortelius.

Published Antwerp, 1570.

This map is the first printed map of Scotland, and the map published by Ortelius may be taken as the starting point in map-making.

Abraham Ortelius was born at Antwerp in 1527, and died 1598. He travelled through England, Germany, France, and Italy, hunting up maps and information about maps, and published the first atlas. Almost all his maps are copies, and he mentions

where the information was obtained. Ortelius was a dealer, collector, and intelligent publisher, but did not engrave maps or execute surveys. In his atlas is given a valuable list of all the works he had been able to accumulate, and in it is to be found the name of Humphrey Lhuyd (see Nordenskiöld's Fac-simile Atlas). This Lhuyd, or Lloyd, was a physician at Denbridge, an antiquary, traveller, and the author of the first modern map of England.

Camden mentions that Abraham Ortelius "did very earnestly solicit him" to undertake the task of writing the *Britannia*, and that he assisted Ortelius with a description of England for his atlas.

The first edition of his great atlas, "*Theatrum Orbis Terrarum*," was published 1570, and the following are a few of the editions which followed:—1573, 1579, 1584, 1595, 1606. Editions appeared with the text in many languages, and after 1600 in English. This atlas had a large sale, and through this work the neighbouring country, Holland, became for a time the centre for map-publishing.

Where Ortelius picked up all the information to make this improved map of Scotland it is difficult to say, but that the information came directly or indirectly from Scotland there can be no doubt. There is one

thing we have very good ground for believing, and that is, a compiler of an atlas of the world, who lived on the Continent, would have his time too fully occupied to have the necessary leisure to visit Scotland, and even if he had the time, in these early days it would have been a laborious and difficult task.

The information given on this map is curious:—“Loch Lomond is subject to great storms, and the fish in it are without fins,” and the six islands named on the loch have only a very slight resemblance to the modern names:—“Horryn,” “Morayn” (probably now Inch Murrin), “Brekwell,” “Wag” (probably Fad), “Roody,” “Brake.” These have been carefully copied by Mercator on one of his maps published twenty years after.

The following is a list of map-makers in Holland:—Mercator was succeeded by Jodocus Hondius (1563-1611), who published maps and an atlas, 6 vols.; his son followed, Henricus Hondius, 1580-1644; and then the business passed to a son-in-law of Jodocus Hondius, Jan Janszon. Opposition map-makers were:—William Jansz Blaeu, 1571-1638, succeeded by his sons, Jan and Cornelius Blaeu, who published the great atlas of 1654.

After this the importance of map-making in Holland fell away in the hands of the following map-makers:—

N. Vischer, 1621 to 1670, his son, Fredrick de Witt, his sons, and Peter Schenck. The influence of the Dutch School, which had previously been so great, disappeared with the close of the 17th century.—See *Encyclopædia Britannica*.

Scotland, from Bishop Leslie's History.

Published Rome, 1578.

This map is small in size, very rare, not nearly so good as that of Ortelius, of little importance as a map, and for a long time back will be found mentioned as the first printed map of Scotland. It is to be found in a few copies of Leslie's History of Scotland, which was published in Latin at Rome in 1578. The book was named "De Origine Moribus et Rebus Gestis Scotorum."

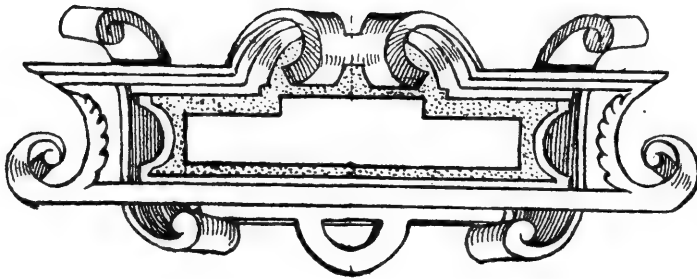
John Leslie was born in 1527, became Bishop of Ross, and was a friend and adviser of Queen Mary, with the result that he was compelled to go to the Continent, where he died, 1596.

This map has been mentioned as if it was the work of Bishop Leslie, but on comparing it with the maps of Jacopo Gastaldi, who had his atlases and

maps of Great Britain printed at Rome from 1546 by Antonio Lafreri, the first printer (after Ptolemy's Britain of 1490) of maps of this country, we find, as might be expected, that Leslie got his map of Scotland from one of Britain by this famous map-maker in Rome, where his book was being printed.

At the Scott of Largs sale, a copy of the first printed (after Ptolemy) and very rare map of the British Isles by Gastaldi, dated Rome, 1546, size 30 in. by 22 in., was sold for £26.





**Scotland, by Nicolay D'Arfeville and
Alexander Lyndsay, Paris, 1583.**

This map is from a very rare little book published in French, at Paris, in 1583. The work is the log-book of the voyage of James V. round his kingdom of Scotland in 1540.

The book in the original is a small 4to of 37 double pages, and the reprint is a small 8vo volume. Copies of the first edition have been sold at sales from £47 to £140, and at the Scott of Largs sale a copy was sold for £22.

Alexander Lyndsay, called "excellent Scotch pilot," was the navigator who gathered the information which helped most map-makers from 1540.

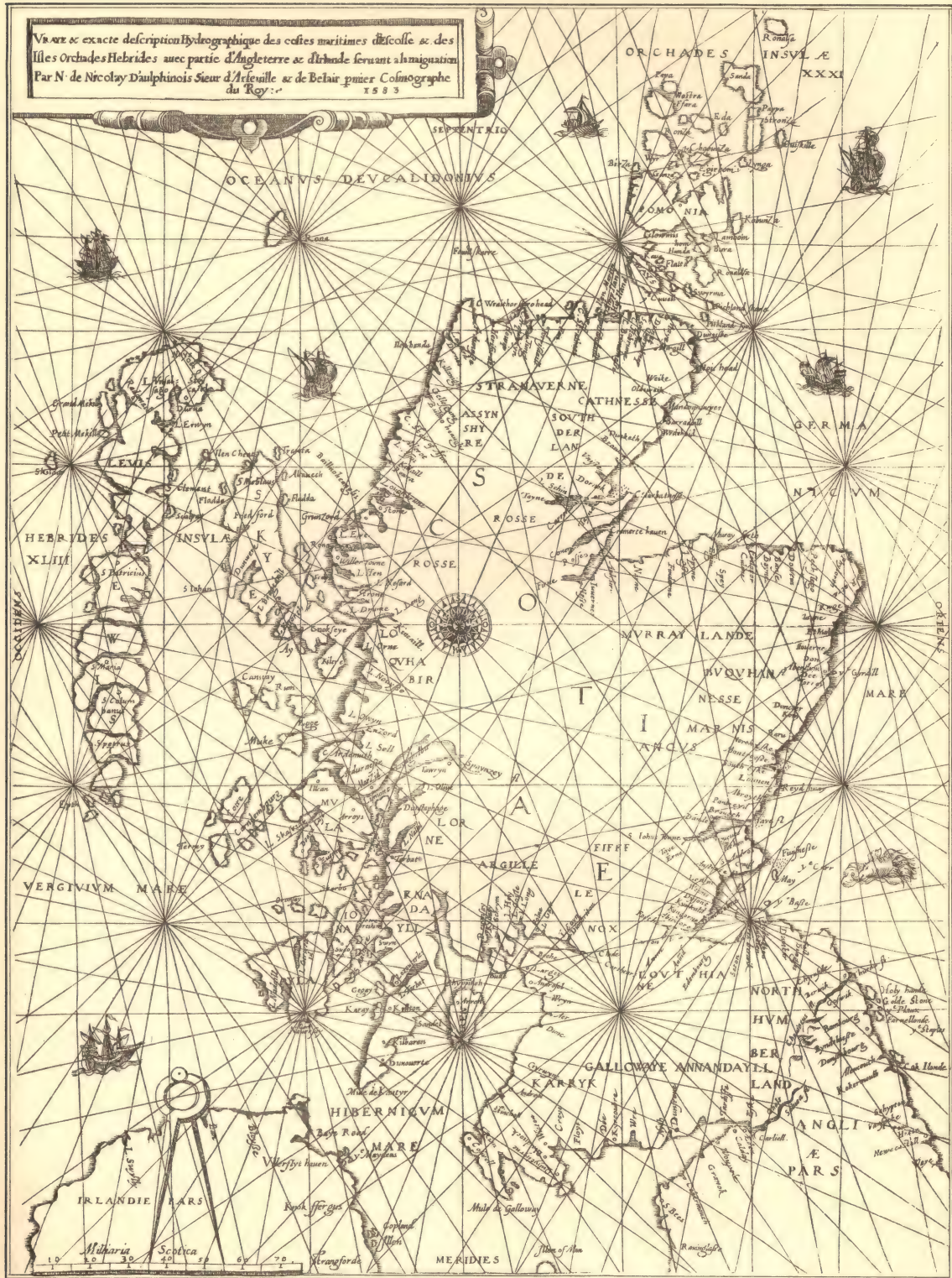
This map was brought out by Nicolay D'Arfeville, cosmographer to the King of France, in 1583, forty-three years after the voyage; and it is well to mention that this Frenchman was not with James V. on his voyage, and that the map was compiled from information supplied by the Scotch navigator.

John Adair, in 1688, at Edinburgh, engraved and republished this map.

Gough mentions that Nicolay accompanied the French fleet of 16 galleys, sent by order of Henry II. of France to besiege the castle of St. Andrews held by Beaton's murderers.



Vraie & exacte description hydrographique des costes maritimes d'Ecosse & des
 Illes Orkades Hebrides avec partie d'Angleterre & d'Irlande servant a navigation
 Par N. de Nicolay Dauphinois Sieur d'Arfeville & de Belair prier Cosmographe
 du Roy. 1583



Reduced facsimile
 pubd. R. S. Shearer & Son
 Stirling, 1905.

SCOTLAND

By Nicolay D'Arfeville and Alexander Lyndsay, Paris, 1583.

Scotiae Regnum, by G. Mercator.

**Published Dusseldorf (Duisburg in Nordenskiöld),
Germany, 1595.**

This map of Scotland is by the Flemish mathematician, geographer, and map-maker, Gerard Kramer, usually called Mercator, who lived from 1512 to 1594, being born in the small Flemish town of Rupelmonde. He studied at the University of Louvain. After 1536, when he married, he occupied himself with map-drawing and engraving. Mercator was imprisoned for a little time for heresy in 1544. In 1552 he moved from Louvain to Duisburg. Engraved a map of England for an Englishman whose name is not given. (Probably Lhuyd or Christopher Saxton, his successor). Mercator worked at an atlas before Ortelius, and postponed his book owing to the atlas of Ortelius being published. (See Fac-simile Atlas of 15th and 16th Centuries, by Nordenskiöld.)

The first edition of Mercator's atlas was brought out after his death by his son; a second edition in 1602, and later editions were published in Holland by the successor of Mercator, Jodocus Hondius. Mercator's name will live for all time as the inventor of Mercator's Projections, the lines so familiar to all on modern maps.

His name is one of the most famous among map-makers, but he did little to improve the map of Scotland except follow in the footsteps of other map-makers. After this map, for nearly a hundred years, there was no great improvement in our map of Scotland till the time of Pont and Gordon, who surveyed the country for themselves.

To show how little progress was made in the improvement of maps from the time of Ortelius down to the middle of the 17th century, I give in one column the number of islands in Loch Lomond shown on maps, and in another the number of lochs which are given as supplying water for the Rivers Teith and Forth:—

ISLANDS.		LOCHS.
13	Ortelius.....	2 1571-3.
13	Mercator.....	3 1595.
13	Speed.....	3 1610.
24	Gordon.....	7 1653-4.
13	Jansen.....	3 1659.

Ortelius shows two lochs as supplying the Teith and the Forth with water. At the side of one we find "Cambel Cast." (castle), and at the other, "Monoch Cast." (probably Monachyle at Loch Earn), and a little further south Ortelius gives a large building named "Cast. Kery" with no loch, and Mercator, or





his engraver, has chanced to add the loch, as this was, no doubt, thought to have been left out by mistake. These three lochs and three castles were faithfully copied for many years by map-makers.

**Kingdom of Scotland, by J. Speed, London,
1610.**

John Speed was born in Cheshire, and worked as a tailor in London. He was a historian and an antiquary, and brought out a large number of maps. His most important work was his *Atlas of Great Britain*, which passed through several editions.

This map of Speed's is very like Mercator's, which was in turn like the map of Ortelius. The principal points of interest are the sketches of Royal persons at each side of the map. As Speed was a tailor, the costumes may be considered authentic.

The left side of the map has James VI. of Scotland, who was baptised and crowned in Stirling, and his son, Prince Henry, who was born in Stirling Castle.

On the right side are given the wife of King James—Anne, Princess of Denmark; and Charles, Duke of Albany, who was crowned as Charles I.

On another of Speed's maps of Scotland, in place of the Royal personages, a sketch is given of a Scotchman and a Scotch woman—a Highlandman and a Highland woman.

Our district is named Strieuling, and the town Sterling; Clamskenar for Cambuskenneth. The following are a few spellings:—Downcastle, Dunblain, Ynche Mohomo, Banoxborn, Alway Castle, Inder Ketthing, Cumirnald Castle.

Britain during the Anglo-Saxon Heptarchy.

By J. Speed, London, 1610 and 1627.

The Scotland of this map has been taken from the map of Ortelius, and not from Mercator, as was Speed's map of Scotland.

**Scotia Regnum, by Robert Gordon of
Straloch.**

Printed Amsterdam, 1653-4.

Gordon was born in Aberdeenshire in 1580, and died 1661. He studied at Aberdeen and Paris, and was famous as a geographer and antiquary.

One author mentions that he prepared an Atlas of Scotland at the request of Charles I., which was published at Amsterdam in 1648, the year before Charles was executed, and it is also recorded that Gordon brought out at the same city a second Atlas of Scotland, called "*Theatrum Scotiæ*," two years later, dedicated to Oliver Cromwell. Very probably it was the same book with a changed title to suit the changed circumstances. Gordon revised Pont's maps of Scotland for Blaeu's Atlas, and in this atlas he has reprinted his map "*Scotia Regnum*," and his other map named "*Ancient Scotland as known to the Romans*," from his first publication. In the last-named map the Forth is named *Bodotria*. Very near Stirling is found the Roman Station *Lindum*, and the Roman Wall (Antonine's) is named "*Valli Adriani*."

Scotia Regnum, by J. Jansen, 1659.

Printed Amsterdam.

Jansen's map appears to belong to an earlier period, and proves what has been stated, that Jansen worked up the material inherited from the Hondius family, who had succeeded Mercator.

Scotland, by P. Coronelli, Paris, 1708.

Dedicated to James III. (the Pretender to the Crowns of England, Scotland, and Ireland).

This map is adorned with signs or marks at different places, and there is a key at the side to give the meaning of these signs. Edinburgh, Glasgow, St. Andrews, and Aberdeen are marked as having universities, and over Stirling the word "Vic," which shows by the key that the author, who belonged to Italy, thought there was a Viscount of Stirling.

Interesting and little-known maps of Scotland published in France are by Vander, 1660; Sanson, 1693; N. de Fer, 1680; G. A. Vindel, 1700.



This is a most interesting map, and a great amount of time could be spent upon it. No roads were in the first edition, but when the King's roads were made by General Wade, after 1725, an edition was published with these roads, but having the old date, 1714. The Advocates' Library copy is one of these.

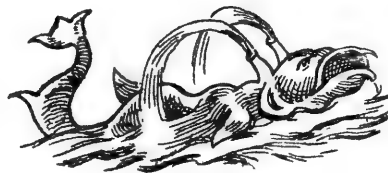
From about this time roads began to be shown in maps, which now grew larger, and many improvements were introduced.

At the sides of this map are eleven small engravings from Slezer's 1693 Views of Scotland.

Full details of the fish caught in the sea are given, and mention is also made of birds, fowl, &c.

The story of marvels is transferred to Loch Lomond this time, and we are informed that it has a floating island, fish without fins, and as being frequently tempestuous in a calm. This is very like what is given in 1314 about Loch Tay, and is a little different from Ortelius in 1570, who says Loch Lomond has great storms and fish without fins. At Iona we find printed, "Here is St. Ouran's Church, famous for the burying of 8 kings of Norway, 48 of Scotland, 4 of Ireland, and many other persons of distinction."

Moll brought out a large number of maps; a description of England and Wales, and the first complete County Atlas of Scotland (a volume of 36 maps), in 1725.



The Coast-Lines of Scotland, 1654 to 1721.

By J. Cowley, London, 1734.

This map shows the changes that have taken place in the coast-line, as shown on maps from 1654 to 1721.

Scotland, by C. Bowles.

Published London, 1735.

This is a large and very good map (4 feet by 3 feet 4 inches), with roads, Roman camps, forts, and military ways; counties coloured, county houses, a sign for churches, cross-swords at battlefields. Abbey Craig is named Abbot's Craig, and Airthrey is called Ethra.

This wording is printed on the map:—

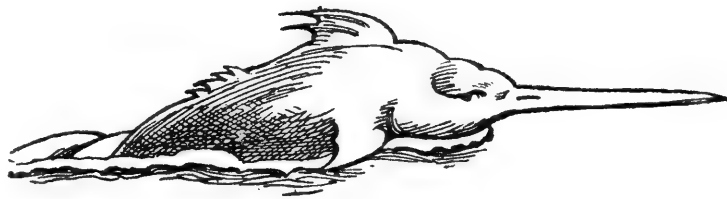
“A new and complete map of Scotland, and islands thereto belonging. From actual surveys.

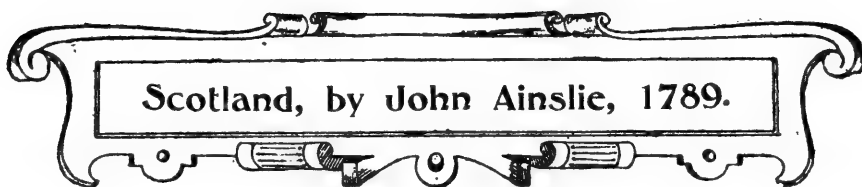
“The shires properly divided and subdivided, the forts lately erected, and roads of communication or

military ways, carried on by His Majesty's command; the times when, and places where, the most remarkable battles have been fought. Likewise the Roman camps, forts, walls, and military ways.

"The Danish camps and forts. Also seats of the nobility in each shire distinguished, with several other remarkable places, that occur in the History of Scotland."

This map, which was published forty-two years before Nimmo's History of Stirlingshire, and before Kildean became so famous in history, has the Battle of Stirling Bridge marked as having taken place near the Old Bridge of Stirling.





" Drawn and engraved from a series of angles and astronomical observations, by John Ainslie, land surveyor, printed and sold by John and James Ainslie, Edinburgh, and William Faden, geographer to the King, London."

The map is $\frac{1}{4}$ of a mile to an inch, the hills are shaded, roads drawn, counties coloured, and a table of distances and heights of hills are given on the map.

This map is a great improvement on previous maps, was printed on nine sheets, and when mounted on cloth with rollers measures six feet in length.

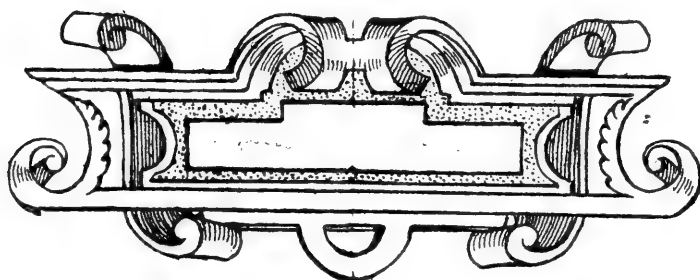
Borough towns, which send Members to Parliament, are marked with a star ; market towns are in a special type ; parish towns, manors, seats and noted houses, have special signs ; Roman names, Roman roads, camps, country roads, military roads, turnpike roads, are each

printed in a special style, so that they are easily identified. This map gives much information about the Roman antiquities in Scotland.

There are only two battlefields marked in this map, and the most prominent is Culloden, 1746 (one that is as well not remembered), and the other is Largs, 1263.

Near Loch Etive this information is given, "Ruins of the city and castle of Beregonium, formerly the chief city of Scotland."





**Scotland, by Lieutenant Campbell,
1794.**

This map is named "A new and correct map of North Britain, with all the ports and military roads, divisions, &c. Drawn from most improved survey, illustrated with many additional improvements, and regulated by the latest astronomical observations."

There is a resemblance between this map and the map by Bowles of 1735.

On examining the map, there are many reasons for supposing that it is the work of a lieutenant in the Navy. Sandbanks and dangerous rocks are noted, and in many cases by whom discovered. Roads are also a special feature of this map.

A number of battlefields are marked, but either the drawer of the map or the engraver did not work with care. The Battle of Tippermuir of 1644 is spelled Tibbermoor, and Dupplin Battle of 1332 is shown as Dublin, 2nd September, 1644. Bannockburn is found as 1318 in place of 1314. Kirkinthillo for Kirkintilloch, and King Water printed in place of River Allan near the small tributary named Knaik River, are a few of the curious points in this map.

This information, which looks better, is to be found at Shetland:—"The principal employment of the inhabitants is fishing and gathering kelp, or sea wrack. The Dutch used to resort once a year to Brassa Sound for cod and herring fishing, great plenty of wild fowl and venison on the island."

Ailsa Craig, in the Frith of Clyde, has the following:—"Ilsay or Ailsa, a rock of 940 feet high, belongs to the Earl of Cassils, and is let for £30 per annum for the liberty of taking the young of birds which resort to it, called Sollan geese."

Scotland, by G. D. Macpherson, 1796.

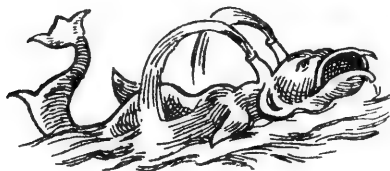
The title of this small and interesting map is "An Historical Map of Scotland, with the north part of England, adapted to the year 1400, and constructed from most authentic materials. London, 1796."

On the title a figure points a hand to Scotland, and at the side is printed—

"There Roman eagles fled from conquering foes,
The rugged rock, the barren desert smil'd;
For I, and loose-rob'd Freedom, walk'd the wild."

Parliamentary Map of Scotland, 1799.

A small map printed in colours for the House of Commons, distinguishing Lowland, Highland, and intermediate districts, for a Report respecting distilleries.





This, the first of the folding pocket maps of Scotland, mounted on cloth, and in a leather case for travellers, is a very creditable publication. The map measures 28 by 23 inches. This map shows the military districts with their headquarters, navigable rivers, and how far navigable, population of the counties, heights of mountains, account of the canals; and the proposed canal from the Solway Frith, by Carlisle (near the Roman Wall), to Newcastle, is sketched.

The roads taken by Pennant on his first tour are coloured red, Dr. Garnett's coloured yellow, Lettice's coloured blue, and Campbell's coloured orange. A list of the towns and villages visited is given in addition for each of these tours; a table of distance is also on this map. Published by J. Kirkwood & Sons, Edinburgh.

Arrowsmith's Map of Scotland, 1807.

This is a grand piece of work, and is minutely and carefully engraved. The hills are shaded, small streams and names of places in great abundance. The map will compare favourably with maps of the present day, and a novelty in map-making now appears—the fresh-water lochs are coloured.

This wording is found on the map:—"Constructed from original materials obtained under the authority of Parliamentary Commissioners, for making roads and building bridges in the Highlands of Scotland. By A. Arrowsmith, London, 1807." Size, 6 feet by 4 feet 9 inches.

Arrowsmith's 1815 Map of Scotland.

This map only measures 23 by 19½ inches. The different classes of roads are printed in colour, and are easily identified. This is described on the title:—
“From original materials obtained by the Parliamentary Commissioners for Highland roads and bridges, and exhibiting the roads, bridges, and harbours made, contracted for, or under consideration.”





LOTHIAN AND LINLITQUO. By Timothy Pont.
1630 and 1638.

This is the first printed county map of Scotland. It must have been got from Pont by the famous Edinburgh printer, Andrew Hart, and engraved to his order, as his name is on the map. In an edition

of Mercator's Atlas (published Amsterdam, 1630), and in the Atlas of Mercator's successors (J. Jansen & H. Hondius, Amsterdam, 1638) this map is to be found dedicated to James I. of England. The series of Pont's maps of Scotland got into the hands of the Blaeus (the rival publishers to the successors of Mercator), and came out in the famous Atlas of 1653-4. A great amount of time could be spent studying this map, which abounds with information for the antiquary. This is the only map by Pont or in Blaeu's Atlas of Scotland in which roads are shown. In the atlas one map shows a road from Berwick-on-Tweed to Edinburgh, and another lays down a road from Glasgow to Paisley, but this map of Lothian and Linlithgow is the only one giving a number of roads. The following extract from a newspaper tells a little of what is to be found in the map:—

The peculiar spelling of castles and estates, rivers, roads, towns, &c., will be followed with much interest. It is surprising on looking over the map to find many well-known names under some quaint old spelling. The river Esk is shown as crossed by a bridge at Muscle Brug, while Symtoun, Elphinstoun, and Edmondstoun, are shown as enclosed properties. A forest is shown at the junction of the north and south branches of the Esk, with a fence on its south side extending from one river to the other. Both the town and castle of Dalkeith are shown, but apparently no bridge existed either over the North or South Esk. A bridge over the river,

however, appears to have existed at Leswodd. Roslyin estate is represented as enclosing a large portion of ground, extending from Karkettill to near Dryden. On the South Esk two bridges are shown at New Battel, while the estates of Dalhousy and Arnistoun are also laid down. Amongst the familiar names appearing on this portion of the map are Mastertoun, East and West Houses, Stobsmills, Newbyres, Kathuin, Borth-yik, Orichtoun, Hakerstoun, &c. The main road running from Edinburgh by the coast is shown as far as Dunbar; while the south country road divides in two portions at Blackford; one portion, after passing Dalkeith, goes by Easthouses to Furd Mill, where it crosses the Tyne to Saltra; the other road, after crossing the Esk by Leswodd bridge, passes to the west of Dalhousy to Ladieshaw on Heriot Moor. To all who take an interest in the archæology of the county this map should prove of great value.

LOTHIAN AND LINLITQUO. From Blaeu's Atlas.

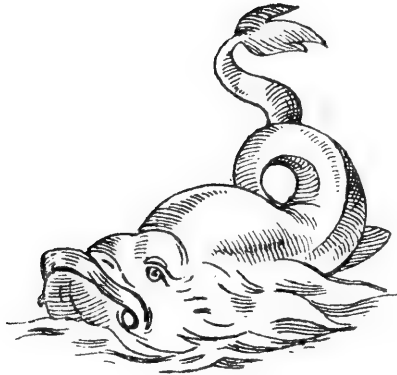
1654.

This map is the same as the last mentioned, with this difference, Pont's name has been erased, and those of J. & C. Blaeu substituted. The map is dedicated to Lord Lothian.

STERLIN-SHYR. By Timothy Pont. Drawn about 1610, and published 1654. The first map of the county. Size, 21 inches by 15 inches.

Timothy Pont was a minister, and the son of a minister. His father, the Rev. Robert Pont, was minister at Dunblane, Dunkeld, and at St. Cuthbert's, Edinburgh, in 1574. His eldest son, Timothy, was, in 1601, appointed pastor of the congregation at Dwinet (Dunnet), in Caithness. He was the first projector of a Scotch atlas, and personally surveyed all the Kingdom. The maps were not published in his lifetime. One of his maps, Lothian and Linlithgow, appeared 1630-38, but his series of maps was revised by Robert Gordon, of Straloch, and appeared in Blaeu's Great Atlas of the World, published in Amsterdam about 1654. This great and marvellous publication was in eleven large folio volumes, and volume six contained the maps of Scotland. Worthy of attention in this map of Stirlingshire are the old names, sketches of castles, rivers crossing each other, and a little building with a cross at Kirk o' Muir. At the site of Stirling Old Bridge a mill is shown—the only one near the town. Stirling is named Starling with the "Parck," the Castle is given with three towers, a cross marks the Stirling Church, and the town is on the Stirling Rock. There is no published map

by Pont of the country lying between the Forth and Tay to the west of Stirling. It has been stated that the sketches of this most interesting part of Scotland were lost when on transit to Amsterdam to be engraved. The original drawings of Pont's maps are preserved in the Advocates' Library, Edinburgh.



THE LENNOX. By T. Pont, 1654. From Blaeu's Great Atlas of 1654. Size, 21 inches by 15 inches.

This map is one of the best, most interesting old maps of Scotland, and is a storehouse of information to the antiquary who is interested in this part of the country. The upper reaches of the Forth, with the Ainrick (Endrick) Valley, are shown, as well as the country by Loch Lomond as far as Loch Loung (Long). Dumbarton is shown as large as Glasgow at this period. Govan, Renfrew, Grinock, and Gorock have only two or three houses at each. On Loch Lomond few of the names of the islands have much resemblance to the names of to-day, but the following seem to have changed only a little:—Inche Merin to Inchmurrin; Creinche to Creinch; Yl na mom to Inchmoan; Inche Connagan to Inch Connachan. The following well-known names are easily recognised:—Luz, Bellach, Liven, Yockyrr, Scotstoun, Partnick, Dounotyr, Gerrloch; and the Clyde has in addition the old name, Glotta. The Roman Wall, houses, chapels, villages, streams, and hundreds of interesting names are all to be found on this map, and remembering when the district was surveyed by Pont, it appears a marvel that he could get the

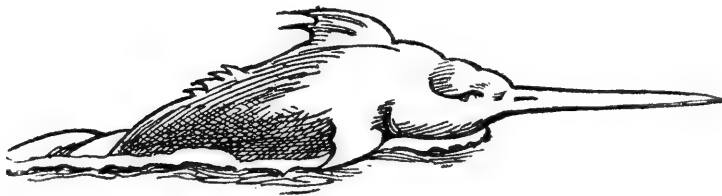
work done in this district and return home alive, as the clansmen here were about this time considered by people in the South to be little better than savages.

FIFE. By Jacobus Gordonius.

From Blaeu's Great Atlas.

This is one of the best maps in the Atlas, and contains a very large number of names. The following fine old styles of well-known names are interesting:—
Bruntlyland, Kingorn, Pitnaweem, Ansterrudder, Careill, Cowper, Keanross.

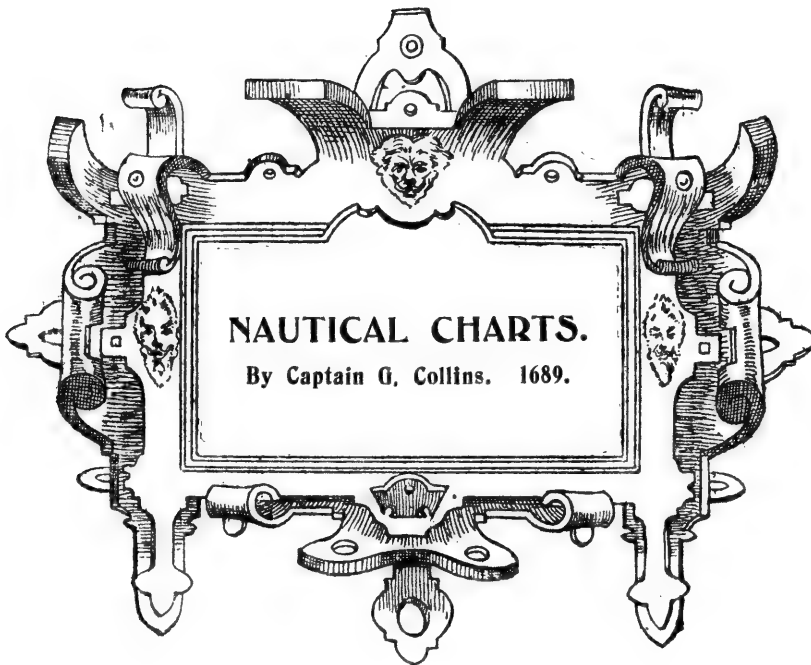
James Gordon was the son of Robert Gordon of Straloch. He became minister of Rothiemay in Banffshire, and along with his father completed Pont's maps for Blaeu's Atlas.



NETHER WARD OF CLYDESDALE. By T. Pont. From
Blaeu's Great Atlas of 1654.

Glasgow is spelt "Glasqua," and the plan of the town shows one main street, with five streets branching to the sides. One bridge crosses the river, and five large buildings are shown.





(a) THE FORTH—DUNFERMLINE TO BERWICK. (b) COAST
LINE NEAR LEITH, WITH PLAN OF LEITH, &c.

A view of Leith is given from the East, showing harbour, ships, and buildings. In the plan of Leith on this map one large church is the most prominent building, and two smaller building like churches are laid down. There is one bridge and a wall or ditch on the east of the town, with a Fort on the west.

NAUTICAL CHARTS. By Captain G. Collins. 1689. Engraved by H. Moll, with Soundings, Dangerous Banks, Anchorages, &c.

(a) THE EAST COAST—CRAIL TO MONTROSE, with the Harbours and Towns of Aberdeen, Dundee, and Montrose.

Aberdeen is given with a windmill on the North, one church with a spire, 30 large houses, two circular buildings or towers, with pointed roofs, and two well flat roofs.

Old Aberdeen has one large house or castle, and nine smaller houses, around which are a number of trees. The river is called "The Dye," and a castle where the river enters the sea is named Blockhouse, and on the opposite, or south side, a beacon is marked.

Dundee has six houses and one large building, like a church; further down the river Castle "Broughtie" is the only building at the present Broughty Ferry, and where the river enters the sea "Bottannais Lights" are marked, at the point now named Buddon Ness.

Montrose is only credited with a large church with a spire, a few houses, and two windmills.

(b) **HARBOURS OF ORKNEY.**—This map contains much information for navigators. Lerwick is represented as one row of houses along the seashore, with a large Fort to the East of the town.

THE TOWN AND WATER OF MONTROSS, with the neighbouring country and coast from Redhead to the North Water. By John Adair. 1693.

THE RIVER AND FIRTH OF FORTH, 1730.—A very finely engraved nautical chart, with sketches of islands. A new Hydrographical Survey of the River Forth and the Firth of Forth, called the South Firth or Edinburgh Firth.

FRITH AND RIVER TAY. By John Adair. 1730. The following spellings in this map are of interest:—Anstruthers, Kilereny, Silver Dyks, Creal, Gairbridge, and, near at hand, a place named Rome.

RIVER CLYDE.—A new and exact map of the River Clyde. By the late John Adair, Fellow of the Royal Society, 1731, and published for the good of the public by Geo. Scott. Size, 27 inches by 19 inches.

This is a bold map on a small scale, 5 miles to an inch, giving large houses, villages, &c. Glasgow is shown as a little town on one side of the river

with a bridge. The Gorbals stand alone. Round Glasgow — Calder, Cathcart, Eastwood, Govan, and Mearns are all marked as having churches and chapels.

WEST LOTHIAN. By Adair. 1743. Size, 26 inches by 18 inches; $1\frac{1}{2}$ inch to a mile.

This map is carefully engraved with castles, mansion-houses with grounds; the houses, trees, rivers, hills all shown, as well as roads, with dotted lines. Blackness Castle is represented with two-pointed towers at the entrance.

THE NORTH COAST OF BRITAIN, from Row Stoir of Assynt to Wick—A Geometrical Survey, with harbours, rocks, and an account of the tides, done at the desire of the Philosophical Society at Edinburgh. By Rev. Alex. Bryce, one of His Majesty's Chaplains. 1744.

“Rev. Alex. Bryce, born at Borland, parish of Kincardine, 1713, died 1786. He was a pupil in Stirling Grammar School. While a private tutor in Caithness in 1740, and two following years, he constructed a chart of the northern coast of Scotland, which was published in 1744. In 1745 he was ordained parish minister of Kirknewton. In 1752, in a lumber-room, he discovered the Stirling Pint Jug. Many contributions from his pen may be found in the

'Transactions of the Royal Society.' He attained distinction as a mathematician, and also wrote poems."—See Hutchison's "High School of Stirling."

"Alexander Bryce, minister of the united parishes of Kirknewton and Calder, and one of His Majesty's Chaplains, an excellent mathematician, who assisted in settling, or rather himself settled, the meridian, longitude, and latitude of Edinburgh by observation with very fine astronomical instruments."—Gough.

This is a beautifully-drawn and engraved map, and abounds with interesting information.

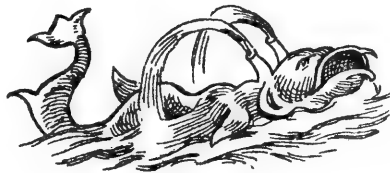
No. 3 of the Rarities of Caithness is very curious—"In several places of Caithness there is a grey stone which burns as bright as a candle without having its figure changed." And No. 5 of the Rarities is—"In the Water of Thurso there has been caught in a morning, with two or three draughts of a net, 2500 and some odd scores of salmon."

STRATHEARN, STORMONT, KARSE OF GOWRIE. By John Adair. 1745.

A lot of time could be spent going over this map, and much information gathered from the sheet. The two objects of special interest are—Enlarged plan of the Roman Camp at Ardoch, and the sketch of a Roman inscribed stone.

RIVER FORTH ABOVE STIRLING about 1750. Giving rivers Teith, Allan, and small streams, with sketches of hills, and a letterpress description of the district for the guidance principally of commanders of armies.

The following is an extract from this map:—"All the fords on the Forth and Teith are only mentioned as fordable in dry seasons in the summer time. The first ridable ford is a little above a place called the Drip, near the foot of Teith water, and the road from it eastward comes within reach of the guns at Stirling Castle. The next ford is six long miles above at Frew, and further west Gartartin Ford, near Gartmore, is mentioned as being preferred to going by the Bridge of Aberfoyle. The Duke of Argyle in 1715 kept a garrison in buildings near these two fords, and effectually kept the rebels from crossing."



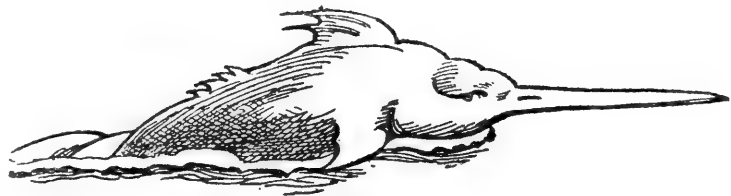
EDGAR'S STIRLINGSHIRE, 1745, published with Nimmo's History of Stirlingshire. 1777. Size, $27\frac{1}{2}$ inches by 19 inches.

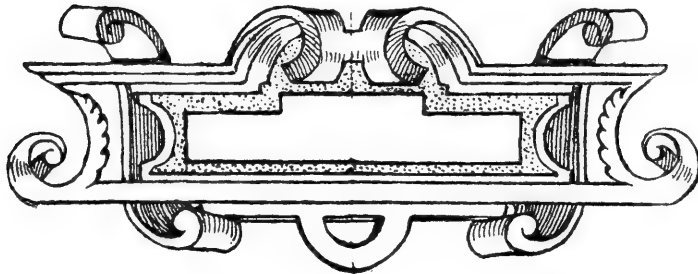
This, the second map of Stirlingshire, was surveyed by William Edgar, in 1745, and is a great improvement on Pont's map. It is really a bird's-eye map, and contains much information. The following matters are of special interest—The Roman wall, forts, road, plan of the battle of Falkirk in 1298, and of Bannockburn in 1314. Loch Coulter has its island, and Kirk o' Muir is marked as in ruins. Down to 1819, Loch Coulter is shown on early maps with an island, but the island disappears on maps after 1829. In this edition of Nimmo's Stirlingshire, and in the edition of 1817, the map in each work shows the Roman road crossing at the shallows, above Craigforth Mill (marked Roman causeway), and running north by Keir and Dunblane without crossing the Allan or any stream. This is also shown on the map in Roy's Roman Antiquities, published 1774. All this is disproved if Sir Robert Sibbald is correct in what he mentions in his 1707 or first History of Stirlingshire. "It is thought that Julius Agricola first laid a bridge over the river here (Stirling); it was for a long time only of timber, but in later times it was built of stone." From this it is evident that this great authority had no knowledge of what was later called Kildean Roman

ford, otherwise he would have mentioned it in his writings. In the earlier map of "Roman Scotland," by Gordon, published 1653, the Roman wall is shown, and Roman stations, but no roads are laid down.

TOWN OF STIRLING. By Charles Ross, of Greenlaw.
Published 1780.

This very interesting map only measures 9 inches by 4½ inches, and shows Stirling as a small place, and was printed in the corner of his Stirlingshire map by C. Ross. In this map, King Street is named Meal Market. The Hospital Garden is shown near the present High School playground. The only mention of Mar's Work is that it is in ruins. The Gowan Hill, called Gowling Hill, has this information—"Here the rebels battered the Castle in 1745 and were repulsed. Duke Murdoch was here beheaded, 1424."





A MAP OF STIRLINGSHIRE, from Actual Survey. By Charles Ross of Greenlaw, 1780. Size, 50 inches by 25 inches.

In the last map executed by Edgar in 1745, as well as in this, the only road shown from Cowane Street to the Drip passes round by the side of the Gowan Hill and skating pond to the Raploch, when it turned north, and passed through the fields in front of the Raploch, and on to Kildean Mill. The Cornton Road leading to Bridge of Allan is not given, and the Dumbarton Road, passing the King's Knot, is not shown. To go from Stirling to Gargunnoch and Dumbarton at this time, there was a by-road by Birkhill, but the main road went to St. Ninians, and turned to the right at the cross-roads at the U.F. Church. In the next map, published in 1817, these roads are all set down. In this map are to be found sketches of churches, small and large houses with their grounds, battlefields, Roman Wall, and Graham's Dyke. The

number of souls in each parish in 1780 is stated. A few of these are herewith set down, with the numbers as given in the Church Year Book for 1905:—

					1780	1905
Airth,	1900	1360
Aloa,	500	4743
Campsy,	1900	5424
Falkirk,	5600	15,889
Gargunnoch,	800	633
Kippen,	956	968
Larbert,	4000	13,694 L. & D.
Stirling,	5000	10,649
St. Ninians,	8570	5731
Fintry,	520	314
Denny,	1200	4710

Two curious things on this map are—first, a rough winding country road is shown, running from a quarter of a mile below Kildean Ford up to Bridge of Allan. This is the only map that shows a road to Kildean Ford, and no map mentions a bridge or ford at the place. Second, Kildean (a house) is shown about one mile from the Forth, in a straight line from the ford, near Dumbarton Road. South of this road, Tomiswell (a house), now named St. Thomas's Well, is shown. In the neighbourhood of the King's Park, Hollin Bush, Capmad, and Hayford are set down. At Bridge of Allan the silver mine of 1533 is marked, and Dunmore Park House is given very near to the river Forth. Elphinstone House is the name which appears near the site

of the present Dunmore House. In the west corner of this map we see "Invershaid" Fort, and a mill near the falls.

PERTH AND CLACKMANNAN. Surveyed by James Stobie, published London, 1783; Perth, 1805; and a small edition in Edinburgh after 1800.

This is a great and monumental work, and measures 6 feet by 5 feet 4 inches; it is drawn on the scale of one inch to a mile. In one corner a description of the county is given; large engraved views appear of Perth and Dunkeld, with pictures of the following mansion-houses:—Shaw Park, Balgowan, Marlie, Belmont Castle, Castle Huntly, Gartmore, Keir, and Doune Castle (roofless). Every cottage, house, path, and rivulet are carefully drawn on the map. Near Cornton the name Silver Castle is given, and on the Abbey Craig a circular building is shown, which is marked "in ruins." At the hill above Keir a round camp is sketched, and one as well is marked near Kippenross Lodge on the same road. A good sketch has been made of the large Roman camp at Manor Ford. In a beautifully-engraved map, which has too much colour to be photographed, named the Forth Basin, by Knox, published 1832, the fort on Abbey Craig, the camp at Manor Ford, and Ardoch Camp, are all set down with care. The following

extracts from a paper read by Mr. Hugh W. Young, F.S.A. (Scot.), at Newcastle-upon-Tyne, in 1897, are interesting in connection with Manor Camp:—

There was a Roman road which crossed the Forth by a paved ford near Manor, about a mile east of the Abbey Craig. This ford was paved with flagstones, and seems still to exist, though covered deep in mud. A square castellum covering an acre of ground guarded the ford, and was removed about eighty years ago. A bronze sword was fished up at the ford, and several bronze javelin heads were found near this road.

Here is the vestige of an old four-square castellum, containing an acre of ground.—Macfarlane's MSS., Geographical Collection, Advocates' Library, pp. 159, 160.



THE COUNTIES OF FIFE AND KINROSS, with Rivers Forth and Tay, Surveyed and Engraved by John Ainslie. Second Edition : London, 1801.

The size of this fine map is 3 feet 4 inches by 4 feet, and the scale is $1\frac{1}{4}$ inch to a mile. There is much detail on the sheet, sketches of houses, shaded hills, and trees shown, with plans of grounds near county houses. There is a large view of St. Andrews Cathedral. A clearly drawn plan of St. Andrews, and the streets of Edinburgh, Perth, and Dundee, are carefully set down. A treatise on land surveying was brought out at Edinburgh in 1812 by the author of this map.

STIRLINGSHIRE. By John Grassom, Surveyor, Stirling, 1817. Size, 3 feet 6 inches by 5 feet 7 inches; $1\frac{1}{2}$ inch to a mile.

No county in Scotland has had a larger number or better maps than Stirlingshire, and this map is one of the best old county maps published. It was reprinted in a smaller size in Edinburgh in 1819 and 1837. The parishes are coloured, and roads given very like the present day; houses, rivers, hills are all indicated on this sheet. The editor of the second edition of Nimmo's "Stirlingshire" saw this map, and praises it in that work, pp. 575-7. The burn (now underground in pipes), running down from Craigforth

by the toll to Kildean Mill, is marked, and Raploch (4 buildings) is the old farmhouse near the skating pond. Between the Raploch and Craigforth two houses stood, which have now disappeared, Newlandgott and Longmuir, but Falleninch is shown, which still remains. This map shows that down to this time the road by Touch was near the hillside, and passed through Gargunnoch and Kippen, and was not down on the carse land like the present road.



WOOD'S PLAN OF STIRLING, 1820.

This large, most interesting, and valuable map of Stirling, is by John Wood, who compiled maps of a number of towns in Scotland. It measures 41 inches by 25½ inches, and abounds with information. Its value is greatly enhanced by having the names of the occupiers of houses at each property. King Street was then Quality Street, and Baker Street Bakers' Wynd. The English and Writing Schools are seen as small buildings near the High School, and the Grammar School is at the Broad Stairs, near Castle Esplanade. The Old Light Meeting House is the old Free Church at the back of the High School. Melville Terrace is Melville Place, and Pitt Terrace is named Melville Terrace. A projected road is shown, which, unfortunately, was never carried out. Starting from near the foot of King Street, crossing over by the present Caledonian goods yard, which was then occupied by parks, the road passed on by a bridge over the Forth to Cambuskenneth.

PART OF STIRLING, DUMBARTON, AND RENFREW. G. & J. Cary. London, 1829. Size, 26 inches by 20 inches; ½ inch to a mile. Showing soundings of rivers, shaded hills, woods in green, counties coloured, roads, villages, and trees.

THE FORTH, CLACKMANNAN, AND LINLITHGOW. By G. & J. Cary. London, 1830. Size, 26 inches by 20 inches; $\frac{1}{2}$ inch to a mile.

This map is drawn with great care and much detail, showing roads, shaded hills, parishes, woods coloured green, soundings of the Forth, &c., &c.

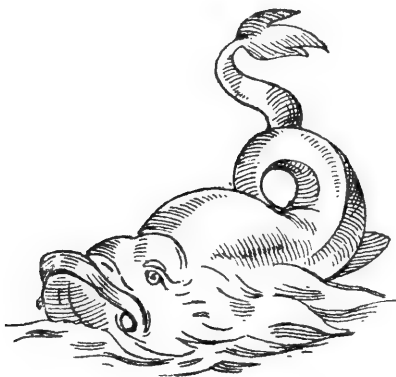
STIRLING IN 1832.

This map is from a volume which contains the boundaries of the several cities, burghs, and towns of Scotland in respect to the election of members to serve in Parliament. It was published 1832. The new bridge is shown, the foundation of which was laid in 1831, but no road is marked along Wallace Street. Kildean Farm is marked Kildean Mill (built 1760), and the mill lade is shown crossing under the Drip Road opposite the Raploch Toll-House, over which you had to cross a bridge to reach the mill. The Commissioners fixed the mill lade and dam as their boundary, considering perhaps that these would be permanent, but they have now disappeared. The arch of the bridge where the lade passed under the road still remains. On the south of Stirling one house stands, and is named Inclosure. The following extracts from this book on Parliamentary boundaries are interesting :—

The Castle was formerly a place of great strength, is occupied by a regular garrison, and contains a depot of arms.

Many respectable families have been induced to settle in Stirling, in consequence of the cheapness of living, the beauty of the surrounding country, and the society which the town affords. The chief manufacture is that of tartans, tartan shawls, carpets, and yarns, which is carried on to a large extent; dyeing, principally of yarns, home-made cloths, and silk. There is a considerable manufacture of malt, leather, soap, and candles. About 100 ships are said to be engaged in the trade up the Forth to Stirling, and steamboats sail daily. The revenue of the town is £3026, one-half of which arises from the customs on goods entering the town at Burgh Port, Bridge, and Shore. Population of Burgh and parish in 1831—8,563; number of houses—843; assessed taxes—£954 7s.

The Raploch, mentioned "as always having been considered a suburb of Stirling," is included in the Parliamentary boundary.



Additions made while Sheets were in the Press.

The "History of Scotland" by Hector Boece, published in 1527, was used by the early map-makers, and gave them these marvels, which they altered a little when drawing on their maps. In the hand-drawn map of 1564 by Mercator, the information taken from Boece is acknowledged.

Humphrey Lhuyd published "The Breviary of Britayne, containing a learned Discourse of the variable state and alteration there of, with the Geographical Description of the same, such as never the like hath been set forth before."

This work was originally in Latin, and in 1573 a translation by Thos. Twyne, 12mo in size, printed in black letter, was published at London.

The astrolabe used by the famous geographer, Robert Gordon of Straloch, is now in the possession of Dr. Cumming, of 18 Ainslie Place, Edinburgh. It is dated 1597, and has engraved round the rim, "Robertus Gordonius."

Moll followed the example of other geographers by bringing out maps and atlases of the World. One work is named on the title-page, "Atlas Minor or a new and curious set of sixty-two maps, in which are shown all the Empires, Kingdoms, Counties, States, in all the known parts of the Earth." The maps occupy one sheet or two folded pages, and the boards of the atlas measure $9\frac{3}{4} \times 7\frac{3}{4}$ in. The atlas was printed for John and Carington Bowles, London, probably after 1725.

Captain Greenville Collins' maps were published in 1689 and 1693, under the name of "Great Britain's Coasting Pilot." There was an edition printed in 1781.

LOTHIAN'S MAPS OF SCOTLAND.

The atlas was published in 1826, and the maps, folded up in four cases, in 1834-35. Scotland is shown on thirty-three coloured maps, while eight additional maps are in the Appendix, size $9\frac{1}{2} \times 7\frac{1}{2}$ in. The frontispiece of the atlas shows the comparative heights of sixty-nine principal hills in Scotland, and at the end of this set of maps one is given named "General Map of Scotland." The maps given in the Appendix are as follows:—

SCOTTISH HISTORICAL MAPS.

Ptolemy's Map of Scotland, A.D. 146.

Richard (of Cirencester) Map of Scotland.

Scotland under the Romans (A.D. 80 to 446), with ancient and modern names; and showing the Sites of the Roman Camps, Native Forts, Druidical Circles, &c.

Scotland under the Picts (A.D. 446 to 843).

Scotland under the Picts and Scots (A.D. 843 to 1017).

Scotland in the Fifteenth Century, with the names as then written; and showing the Divisions into Earldoms, Lordships, Districts, &c.

Highlands of Scotland (A.D. 1715 to 1745), with the Territories of the Clans and the Route of Prince Charles.

Modern Scotland.

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FIRST PRINTED MAP OF SCOTLAND

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